

What Is Claimed Is:

1. An optical sensor assemblage, in particular a thermopile sensor assemblage, comprising:
  - a sensor chip assemblage (10; 10') having an optically transparent irradiation region (OB; OB'), a mounting region (RB; RB') surrounding the latter, and a wire-bond region (BB);
  - an optically isolating mounting frame (MLF; MLF') having a chip receiving region (DP; DP') and a plurality of connector elements (AB-AB''); and
  - an optically isolating packaging device (MV-MV'''),

the sensor chip assemblage (10; 10') being joined in the mounting region (RB; RB') to the chip receiving region (DP; DP'), and in the wire-bond region (BB) to one or more of the connector elements (AB-AB'');

the chip receiving region (LB; LB') having a window (F; F') disposed in such a way that at least a portion of the optical irradiation region (OB; OB') is not covered by the chip receiving region (DP; DP'); and

the packaging device (MV-MV''') surrounding the sensor chip assemblage (10; 10') and the mounting frame (MLF; MLF') in such a way that optical radiation can enter the sensor chip assemblage (10; 10') substantially only through the window (F; F').
2. The optical sensor assemblage as recited in Claim 1,  
wherein the sensor chip assemblage (10; 10') has a first chip (1a) having a first and a second oppositely located surface (O1, O2), and a second chip (1b) having a third and a fourth oppositely located surface (O3, O4), which chips are joined via the first and the third surface (O1, O3) and enclose a cavity (2a, 2b) in which a sensor (A, TP, M) is disposed; and the first chip (1a) has on the first surface (O1) the wire-bond region (BB), which protrudes laterally beyond the second chip (1b) and onto which at least one on a connector element (AB-AB'') is bonded with a bonding pad at the end of a conductor path (LB).

3. The optical sensor assemblage as recited in Claim 2, wherein the optically transparent irradiation region (OB; OB') and the surrounding mounting region (RB; RB') are provided on the second surface (O2) of the first chip (1a).
4. The optical sensor assemblage as recited in Claim 2, wherein the optically transparent irradiation region (OB; OB') and the surrounding mounting region (RB; RB') are provided on the fourth surface (O4) of the second chip (1b).
5. The optical sensor assemblage as recited in Claim 3 or 4, wherein the chip receiving region (DP; DP') has a fifth and a sixth oppositely located surface (O5, O6), and the fifth surface (O5) is joined to the mounting region (RB).
6. The optical sensor assemblage as recited in Claim 5, wherein the sixth surface (O6) is not covered by the packaging device (MV, MV"), and lies in one plane with a lower side (US) of the packaging device (MV, MV").
7. The optical sensor assemblage as recited in Claim 6, wherein the connector elements (AB, AB") protrude out of oppositely located lateral surfaces (SSW1, SS2) of the packaging device (MV, MV"), and their ends lie in the plane of the lower side (US).
8. The optical sensor assemblage as recited in Claim 7, wherein the ends of the connector elements (AB, AB"), and optionally the sixth surface (O6), are joined to a substrate (SUB, SUB") that has a through hole (DL-DL") in the region of the window (F; F').
9. The optical sensor assemblage as recited in Claim 5, wherein the sixth surface (O6) is partially covered by the packaging device (MV, MV"), and a lower side (US') of the packaging device (MV, MV") lies in a plane below the sixth surface (O6).
10. The optical sensor assemblage as recited in Claim 9, wherein the connector elements (AB, AB") project out of oppositely located lateral surfaces (SSW1, SS2) of the packaging device (MV, MV"), and their ends lie in the plane of the lower side (US').

12. The optical sensor assemblage as recited in Claim 10, wherein the ends of the connector elements (AB, AB'') are joined to a substrate (SUB, SUB'') that has a through hole (DL-DL'') in the region of the window (F; F').
13. The optical sensor assemblage as recited in one of Claims 8 or 12, wherein an optical filter device (FS; FI; FI'') is provided on the second or fourth surface (O2, O4) of the first chip (1a) and/or on the substrate (SUB, SUB'') in the region of the through hole (DL-DL'').
14. The optical sensor assemblage as recited in one of the preceding claims, wherein the mounting frame (MLF; MLF') is a solder frame.
15. The optical sensor assemblage as recited in one of the preceding Claims 4 through 14, wherein the wire-bond region (BB) projects laterally beyond the chip receiving region (DP').
16. A method for manufacturing an optical sensor assemblage as recited in one of the preceding claims, characterized by the steps of:
  - joining the sensor chip assemblage (10; 10') in the mounting region (RB; RB') to the chip receiving region (DP; DP'), and in the wire-bond region (BB) to the one or several connector elements (AB-AB'''); and
  - applying the packaging device (MV-MV''') in a molding process.

## LIST OF REFERENCE CHARACTERS

	BB	Wire-bond region
	OB, OB'	Optical irradiation region
	RB, RB'	Mounting region
5	10, 10'	Sensor chip assemblage
	1a, 1b	First, second chip
	2a, b	Cavity
	O1-O6	Surfaces
	M	Membrane
10	TP	Thermopile sensors
	A	Absorber layer
	FS, FS'	Filter layer
	LBR	Soldering region
	MLF, MLF'	Mounting frame
15	DP, DP'	Chip receiving region
	AB-AB'''	Connector elements
	MV-MV'''	Molded package
	BD	Bonding wire
	US, US'	Lower side
20	OS	Upper side
	SS1, SS2	Lateral surfaces
	F, F'	Window

DL-DL''' Through hole

MA, MA' Opening

SUB-SUB''' Substrate

FI-FI''' Filter device

5 BP1-BP3 Bonding surfaces

LB Conductor path